



OW Management Report for Hurricane Harvey and Hurricane Irma – September 20, 2017
EOC Water Desk

Hurricane Harvey Update (notes: Hurricane Irma report starts on page 2; updated information highlighted.)

EPA HQ:

Water Desk Staffing for the coming week is as follows:

Wednesday 9/20: Rich Weisman

Thursday 9/21: Kevin Tingley

EPA Activities: Region 6:

Drinking Water / Wastewater Assessments

Drinking water and wastewater assessment teams completed their emergency assessments of community water systems and have demobilized. The information below is from the Texas Commission on Environmental Quality web site at <https://www.tceq.texas.gov/response/hurricanes>.

Drinking Water: From TCEQ website as of 9/19/17.

	Number of Drinking Water Systems	Population
Fully Operational	2,229	NA
Boil Water Notices	50	16,335
Shutdown	5	1,088

Wastewater and Sewage: From TCEQ website as of 9/19/17.

	Number of Wastewater Treatment Plants
Fully Operational	1,713
Inoperable	9
Operating with Issues	30

Note: maps showing status of drinking water and wastewater facilities have been removed from Region 6 reporting.



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Hurricane Irma/Hurricane Maria Update

Hurricane Maria made landfall this morning near Yabucoa, Puerto Rico at 0615 ET as a Category 4 hurricane. As of 0900 ET Maria was located at 18.3°N 66.3°W, moving NW at 13 mph, with maximum sustained winds of 145 mph. Storm surge values are forecast to be 6 to 9 feet above normally dry areas, especially with this morning's high tide. The deepest water will occur along the immediate coast near and to the north and east of the landfall location, where the surge will be accompanied by large and destructive waves. Maria is expected to produce total rain accumulations of 12 to 18 inches with isolated maximum amounts of 25 inches across Puerto Rico and the U.S. Virgin Islands through Thursday.

With the approach of Hurricane Maria, all EPA USVI/PR response personnel have been re-positioned to the U.S. mainland with exceptions for an EPA rep in St. Croix and others who will be sheltering in place in the USVI and PR.

EPA's Re-Deployment to PR/USVI. FEMA flights will be available from Atlanta back to PR/USVI after Maria passes (estimated Friday-Monday). Six seats reserved for two teams of three responders who will go and assess priority drinking water and waste water facilities in the USVI. Priorities will include those servicing hospitals and sensitive populations. This group would leave 24 hours after the storm passes. Flight expected to leave on 9/22.

Local/State Activities:

Puerto Rico and U.S. Virgin Islands

The President has signed Emergency Declaration FEMA-3391-EM for the Commonwealth of Puerto Rico for Hurricane Maria. The President has signed Emergency Declaration FEMA-3390-EM for the Territory of the U.S. Virgin Islands for Hurricane Maria.

Florida

USACE and the EPA's Region 4 Water Team continue to assist FDEP with assessing status of drinking water and wastewater systems while working from a FDEP office. On September 17, USACE asked EPA for additional personnel to supplement water system assessment efforts. On September 18, EPA's Water Protection Division stood up a team of 36 individuals to conduct phone assessments from the Regional office. FDEP provided EPA with a spreadsheet of 1,378 wastewater facilities with "Unknown", "Partially Operational" or "Non Operational" status, and PDF forms to document communications. The team completed 183 assessments to date, leaving 71 that appear to need a site visit. Assessments were forwarded to the SOC ESF-3 Desk. USACE and EPA will be determining the appropriate timing to send teams into areas for field assessment.

Georgia

The State of Georgia ESF-3 Desk is responding to resource requests from drinking water and wastewater facilities and receiving reports of status at the same time. Georgia Rural Water Association (GRWA) is assisting the state in making calls to check assessment status. GAEPD regional offices are making calls to water facilities and reporting this information to the state ESF-3 desk. GAWARN (municipal mutual aid network for water and wastewater) and GRWA have both been assisting with fulfilling resource requests. No requests for federal assistance have been made for water and wastewater facility assessments or for temporary power supply.



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EPA Activities:

Region 2:

Most of the EPA response team will remain in Atlanta, GA to re-deploy with FEMA and the other Fed agencies once Maria passes through the region. For planning purposes, we are targeting Saturday, 9/23 to re-deploy. This date is flexible based on access to lodging, PR and USVI airport status, and other infrastructure and logistics concerns.

Region 4:

The EPA Region 4 Water Protection Division (WPD) received funding totaling \$75,000 under an ESF-3 MA sub-task to support the U.S. Army Corps of Engineers (USACE) drinking water and wastewater facility assessments. The WPD continues to coordinate with the Florida Department of Environmental Protection (FDEP) and the USACE. Updated information is below under 'Drinking Water and Wastewater System Status – Florida'

Drinking Water and Wastewater System Status

Region 2:

No new information to report.

Region 4:

Florida:

Boil Water Notices (BWN): Boil water notices and advisories are published on the Florida Department of Health's website (<http://www.floridahealth.gov/environmental-health/drinking-water/boil-water-notices.html>). Currently, the site lists 436 BWN issued since September 11, of which 118 have been rescinded, resulting in 318 active BWN.

Water and Wastewater System Assessments: Water and wastewater facilities continue to submit their requests for assistance. The WPD compiled a status of community drinking water systems (CWS) and POTW that may be used during post-storm damage assessment in Florida (see the two tables below).

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Florida				
	Large CWS (Over 3,300)		Small CWS (under 3,300)	
	# Systems	Population Served	# Systems	Population Served
Operational:	378	18,585,834	1125	644,313
Partially Operational:	18	702,630	36	34,545
Non Operational:	0	0	13	2,211
Unknown:	0	0	71	29,634
Totals:	396	19,288,464	1,245	710,703



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Boil Water Notices	318 (436 issued – 118 rescinded)
Comments: Data is compiled from the State of Florida's StormTracker system. The inventory of public water systems in StormTracker consists of all 1,630 Community Water Systems (CWS) and 11 non-community public water systems regulated by the State. These facilities were identified by Florida as the most critical for operational status determinations following major disasters. For convenience, all 1,641 facilities are reported as "CWS" in this table.	
Operational: Facility producing drinking water for greater than 90% of customers under normal operating conditions	
Partially Operational: Facility producing drinking water under adverse conditions and/or supplying less than 90% of customers	
Non Operational: Facility not producing or supplying drinking water	
Unknown: Status of facility unknown at this time	

Total Number of Publicly-Owned Wastewater Treatment Plants (POTWs) All Florida Counties			
	NPDES Permitted Facilities		State Permits (Non-NPDES)
	POTW	Non-POTW (Industrial)	
Operational:	138	190	1,041
Partially Operational:	5	4	54
Non Operational:	0	2	139
Unknown:	2	47	784
Totals:	145	243	2,018
Comments: Data is compiled from the State of Florida's StormTracker system. The NPDES universe tracked in StormTracker represents a subset of the total inventory of NPDES permitted systems that are identified by the State of Florida as the most critical for operational status determinations following major disasters.			
This report shows that 95% of the POTWs are Operational, no increase since the last report of 95%.			
This report shows that 78% of the Non-POTW NPDES Permitted Facilities tracked in StormTracker are Operational, an increase since the last report of 70% .			
Operational: Facility & associated collection system is properly conveying, and effectively providing wastewater treatment, in accordance with applicable permit conditions and regulations. (Operating on full or backup generator power.)			
Partially Operational: Facility and/or associated collection system is properly conveying and providing wastewater treatment at a compromised capacity, i.e. one or more treatment train components are non-operational, one or more lift stations are non-operational, etc.			
Non Operational: Facility and/or associated collection system is not providing wastewater treatment in accordance with applicable permit conditions and regulations.			
Unknown: Status of facility unknown at this time			

Georgia:

Georgia reports that 36 BWNs remain in effect. The Water Protection Division has maintained contact with Georgia, and offered assistance in contacting DW and WW systems to assess operational status. The state is utilizing central and district office staff, in collaboration with Rural Water Association personnel, to assess and report on facility status. **As of September 18, EPD has provided status updates for all community water systems with surface water sources.** All



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community water systems utilizing ground water are being contacted by EPD District Offices. New resource requests are forwarded to the SOC ESF-3 desk for action. EPA receives updates on Georgia's facilities via State Situational Reports.

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Georgia		
	# Systems	Population Served
Operational:	186	7,203,619
Operational w/ Conditions:	8	53,917
Non Operational:	3	40,322
Unknown:	**	2,424,980
Totals:	1,749	8,917,820
Boil Water Notices	75 Boil Water Advisories reported to the SOC.	
Comments: Data is compiled from data collected by Georgia EPD drinking water staff, EPD regional offices and the ESF-3 Water Desk at the Georgia SOC. The inventory of public water systems in <i>Georgia</i> consists of all 1,749 Community Water Systems (CWS). **EPD has provided status updates of all community water systems with surface water sources. All community water systems using ground water are being contact by EPD District Offices and associated resources requests are forwarded to the SOC ESF-3 desk. All community water systems using surface water as a source have been assessed.		
<u>Operational:</u> Facility producing drinking water for greater than 90% of customers under normal operating conditions		
<u>Operational with Conditions:</u> Facility producing drinking water under consumer advisory, e.g., boil water advisories issued by water systems.		
<u>Non Operational:</u> Facility not producing or supplying drinking water		

Federally Recognized Tribes:

SEMINOLE TRIBE OF FLORIDA (STOF)

Power has been restored at Immokalee and Brighton; power has been restored at the Hollywood water plant but the wastewater plant remains on a generator; and Big Cypress expects to be on generator power for the next five to seven days.

MICCOSUKEE TRIBE

The Miccosukee Tribe reported restoration of primary grid power at the tribal drinking water system.